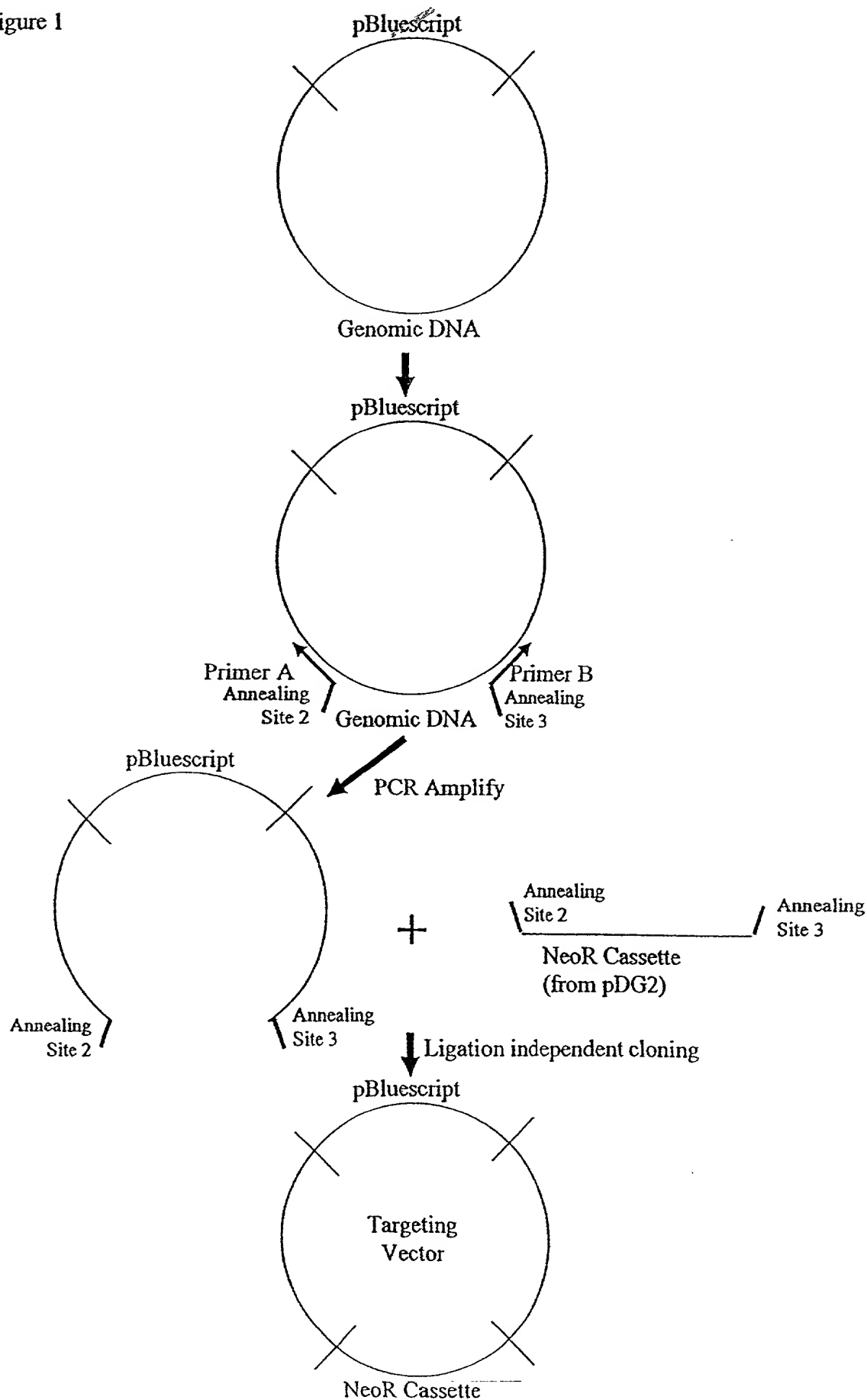


Figure 1



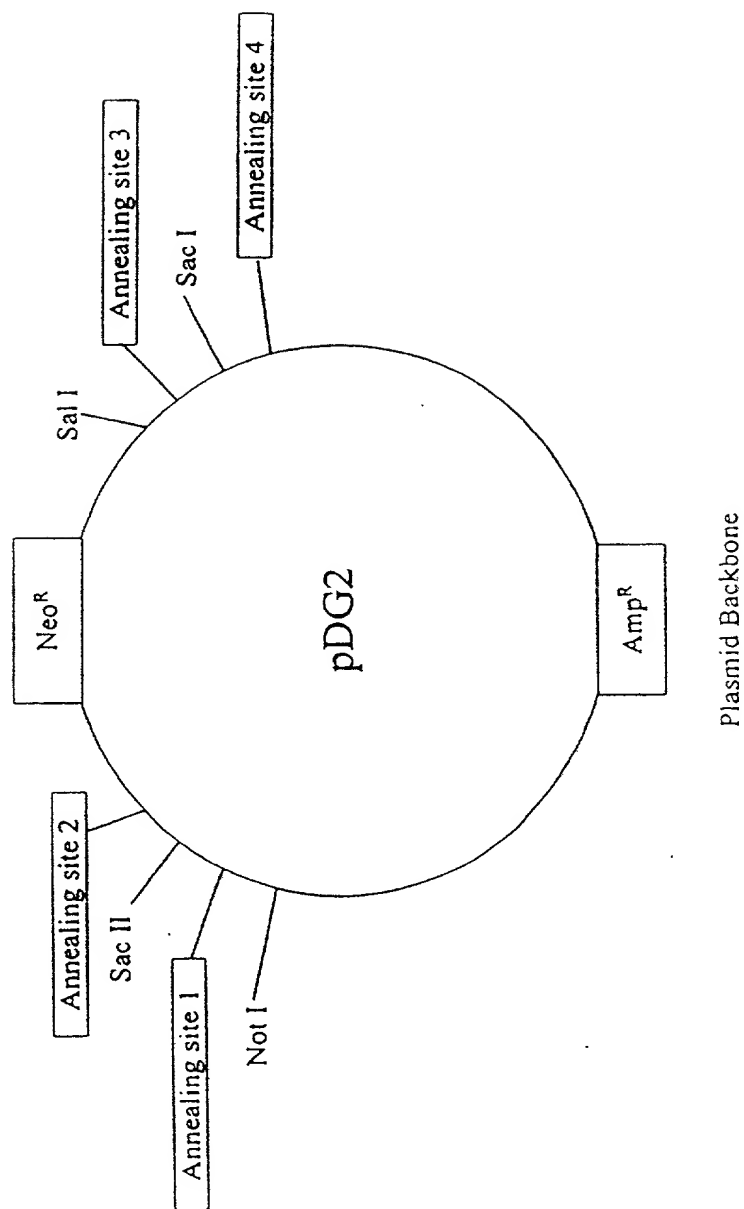


FIGURE 2A

FIGURE 2B

pDG2:

GTAACTACGT CAGGTGGCACTTTTCGGGGAAATGTGCGCGGAACCCCTATTTGTTTATTTTCTAAATACATTCAAATA
TGTATCCGCTCATGAGACAATAACCTGATAAATGCTTCAATAATATTGAAAAAGGAAGATGATGAGTATTCAACATTTTC
CGTGTGCGCCCTTATTCCTTTTTTTCGGGCATTTTGCCCTTCTGTTTTGCTCACCCAGAAACCGTGGTGAAAGTAAAAGA
TGCTGAAGATCAGTTGGGTGCACGAGTGGGTACATCGAAGTGGATCTCAACAGCGGTAAAGATCCTTGAGAGTTTTCGCC
CCGAAGAACGTTCTCAATGATGAGCACTTTTAAAGTTCTGCTATGTGGCGCGTATTATCCCGTGTGACGCCGGGCAA
GAGCAACTCGGTGCGCCGATACACTATTCTCAGAACTGAGTTGGTTGAGTACTCACCGTACAGAAAAGCATCTTACGGA
TGGCATGACAGTAAGAGAATTATGCAGTGTGCCATAACCATGAGTGATAAAGTGGCGCAACTTACTTCTGACAAACGA
TCGGAGGACCGAAGGAGCTAACCGCTTTTTTGCAACATGGGGGATCATGTAAGTGGCGCTTGGTGGGAACCGGAG
CTGAATGAAGCCATACCAACGACGAGCGTGACCAACGATGCTGTAGCAATGGCAACACGTTGCGCAAACTATTAAAC
TGGCGAACTACTTACTCTAGCTTCCCGGCAACAATTAAGACTGGATGGAGGCGGATAAAGTGGCAGGACCACTTCTGC
GCTCGGCCCTTCCGGCTGGCTGGTTTATTGCTGATAAATCTGGAGCGGTGAGCGTGGGTCTCGCGGTATCATTCGAGCA
CTGGGGCCAGATGGTAAGCCCTCCCGTATCGTAGTTATCTACACGACGGGGAGTCAGGCAACTATGGATGAACGAAATAG
ACAGATCGCTGAGATAGGTGCTCTAGTAAAGCATTGGTAAGTGTGACAGCAAGTTTACTCATATATACTTTAGATTG
ATTTACCCCGGTTGATAATCAGAAAAGCCCCAAAAACAGGAAGATGTATAAGCAAAATTTAAATGTAAACGTTAATA
TTTTGTTAAAAATTGCGTTAAATTTTTGTTAAATCAGCTCATTTTTTAAACCAATAGGCGAAATCGGCAAAATCCCTTAT
AAATCAAAAGAAATAGCCCGAGATAGGGTTGAGTGTGTTCCAGTTTGGAAACAAGAGTCCACTATTAAAGAACGTTGAGTCT
CAACGTCAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCAAAATCAAGTTTTTGGGGT
CGAGGTGCGTAAAGCACTAAATCGGAACCCCTAAAGGGAGCCCCCGATTAGAGCTTGACGGGGAAAGCGAACGTTGGCGA
GAAAGGAAGGGAAGAAAGCGAAAGGAGCGGGCGCTAGGGCGCTGGCAAGTGTAGCGGTACGCTGCGCGTAAACCCACA
CCCGCGCGCTTAATGCGCGCTACAGGGCGCGTAAAGGATCTAGGTGAAGATCCTTTTTGATAATCTCATGACCAAAA
TCCCTTAACGTGAGTTTTCGTTCCACTGAGCGTCAGACCCGCTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTT
CTGCGCGTAACTGCTGCTTGCAAAACAAAAAACCCCGCTACCGCGGTGGTTGTTTTCGGGATCAAGAGCTACCAAC
TCTTTTTTCGAAGGTAAGTGGCTTCAGCAGAGCGCAGATACCAAACTACTGTTCTTCTAGTGTAGCGGTAGTGGCCACC
ACTTCAAGAACTCTGTAGCACCGCTACATACCTCGCTCTGCTAATCCTGTTACCAAGTGGCTGCTGCCAGTGGCGATAAG
TCGTGCTTACCGGGTTGGAATCAAGACGATAGTTACCGGATAAGGCGCAGCGGTGCGGTGAAACGGGGGTTCCGTGCAC
ACAGCCCGCTTGAGCGGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCG
AAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCAGGGTGGAAACAGGAGCGCACGAGGGAGCTTCCAGGGGAAAC
GCCTGGTATCTTTATAGTCTGTGCGGTTTCGCCACCTCTGACTTGAGCGTGCATTTTTGTGATGCTCGTCAGGGGGCG
GAGCCTATGGAAGAACGCCAGCAACGCGGCTTTTTACGGTCTCTGCGCTTTTGTGCGCTTTTGTCTCATGTAATGTG
AGTTAGCTCACTCATTAGGCACCCAGGCTTTACACTTTATGCTTCCGGCTCGTATGTTGTGGAATTTGAGCGGATA
ACAATTTACACAGGAACAGCTATGACCATGATTACGCCAAGCTACGTAATACGACTCACTAGGCGCGCGCTTTAAAC
AATGTGCTCCTCTTTGGCTTGCTTCCGCGGGCAGCGCAGACAAGAACAGTTGACGTCAAGCTTCCCGGACGCGTGTCT
AGCGGCGCGCGGAATCTCTGAGGATTGAGGGCCCCCTGCAGGTCAATTCTACCGGTAGGGGAGGCGCTTTTCCCAAGG
CAGTCTGGAGCATGCGCTTTAGCAGCCCCGCTGGCACTTGGCGCTACACAAGTGGCTCTGCGCTCGCACATTCACA
TCCACCGGTAGCGCAACCGGCTCCGTTCTTGGTGGCCCCCTTCGCGCCACCTTCTACTCTCCCTAGTCAGGAAGTTC
CCCCCGCCCCCGAGCTCGCGTCTGTCAGGACGTCACAAATGGAAGTAGCAGCTCACTAGTCTCGTGCAGATGGACAG
CAGCGCTGAGCAATGGAAGCGGTAGGCTTTGGGGCAGCGGCGCAATAGCAGCTTTGCTCTCGCTTTCTGGGCTCAG
GGCTGGGAAGGGTGGGTCCGGGGCGGGCTCAGGGGCGGGCTCAGGGGCGGGGCGCGAAGGCTCTCCGAGGCCCC
GGCATTCTCGCACGCTTCAAAGCGCACGCTGCGCGCTGTTCTCTCTCTCTCATCTCCGGGCTTTGCACTGACG
CAATATGGGATCGGCCATTGAACAAGATGGATTGCAAGCAGGTTCTCCGGCGCTTTGGGTGGAGAGGCTATTCCGGCTATG
ACTGGGCACAACAGACAATCGGCTGCTCTGATGCCGCGTGTTCGGCTGTGAGCGAGGGGCGCCCGTCTTTTTGTG
AAGACCGACCTGTCCGGTGCCCTGAATGAAGTGCAGGACGAGGCGCGGCTATCGTGGCTGGCCACGACGGGCGTTC
TTGCGCAGCTGTGCTCGACGTTGCTCAAGCGGGAAGGACTGGCTGCTATTGGGCGAAGTGGCGGGGCGAGATCTCC
TGTCACTCTACCTTGCTCTGCGGAGAAAGTATCCATCATGGCTGATGCAATGGCGGCTGCATACGCTTGATCCGGCT
ACCTGCCATTTCGACCACCAAGCGAAACATCGCATCGAGCGAGCACGTAAGTGGGAAGCGGCTTGTGATCAGGA
TGATCTGGAGCAAGAGCATCAGGGGCTCGCGCCAGCGCAACTGTTCCCGAGGCTCAAGGCGCGCATGCCGACGGCGATG
ATCTCGTCTGACCCATGGCGATGCTGCTTGGCGAATATCATGGTGGAAAAATGGCGCTTTTCTGGATTCTACGACTGT
GGCGGGCTGGGTGTGGCGGACCGCTATCAGGACATAGCTTGGCTACCGGTGATATTGCTGAAGAGCTTGGCGGCAATG
GGCTGACCGCTTCTCGTGCTTACGGTATCGCGCTTCCGATTTCGAGCGCATCGCTTCTATCGCTTCTTGACGAGT
TCTTCTGAGGGGATCGATCCGCTCTGAAGTCTGCAGAAATGATGATCTATTAAACAATAAGATGTCCACTAAAAATGG
AAGTTTTCTGTCTACTTTTGTAAAGAGGTGAGAACAGAGTACCTACATTTGAATGGAAGGATTGGAGCTACGGGG
GTGGGGTGGGGTGGGATTAGATAAATGCTGCTCTTACTGAAGGCTCTTACTATTGCTTTATGATAATGTTTATAG
TTGGATATCATAATTTAAACAAGCAAAACCAATTAAGGGCCAGCTCATTCTCCCACTCATGATCTATAGTCTATAGA
TCTCTCGTGGGATCATTGTTTTCTTCTGATTTCCCACTTTGTGGTTCTAAGTACTGTGTTTTCAAATGTGCTAGTTCA
TAGCCTGAAGAACGAGATCAGCAGCCTCTGTTCCACATACACTTCACTCTCAGTATTGTTTTGCCAAGTTCTAATCCAT
CAGAAGCTGACTCTAGATCTGGATCCGGCCAGCTAGGCGCTCGACCTCGAGTATCAGGTACCAAGGCTCTCGCTCTGTG
TCCGTTGAGCTCGACGACACAGGACACGCAATTAATTAAGGCGGGCGTACCCTCTAGTCAAGGCTTAAAGTGAAGTCCG
TATTACGGAAGTGGCGCTGTTTACAACTGCTGACTGGGAAAAACCTGGCGTTACCAACTTAATCGCTTGCAGCACA
TCCCCCTTTCCGCGAGTGGCGTAATAGCGAAGAGGCCCGCACCGATCGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCG
AATGGCGCTTCCGTTGTAATAAGCCCGCTTCCGCGGCTTTTTTTT

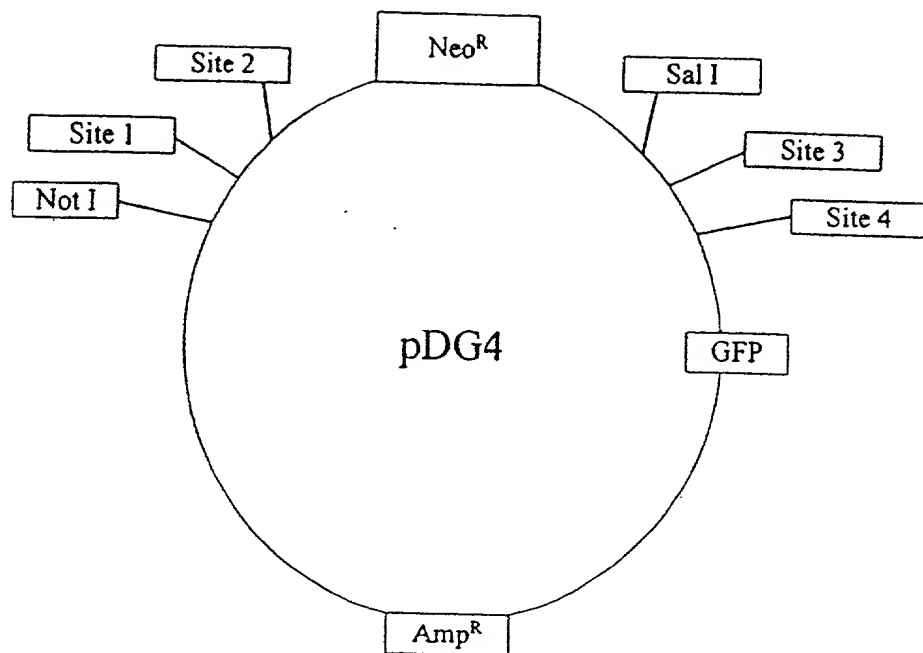


FIGURE 3A

FIGURE 3B

pDG4:

GTTTAAATAGTAATCAATTACGGGGTCATTAGTTTCATAGCCCATATATGGAGTTCGGCGTTACATAACTTACGGTAAATGG
 CCCGCTGGCTGACCGCCCAACGACCCCGCCCATTTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCAATAGGGA
 CTTTCCAATGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGT
 ACGCCCCCTATTGACGTCAATGACGGAATGGCCGCTGGCATTAAAGCCAGTACATGACCTTATGGGACTTTCCTAC
 TTGGCAGTACATCTACGTATTAGTCATCGTATTACCATGGTGATGCGGTTTTGGCAGTACATCAATGGGCGTGGATAGC
 GGTTTGACTCAGGGGATTTCCAAGTCTCCACCCCATTTGACGTCAATGGGAGTTTGTTTTGGCACCAAAATCAACGGGAC
 TTTCCAAAATGTCGTAACAACTCCGCCCCATTGACGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATAAAGCAG
 AGCTGGTTTAGTGAACCGTCAGATCCGCTAGCGCTACCGGTGCGCCACCATGGTGAGCAAGGGCGAGGAGCTGTTACCGG
 GGTGGTGCCCATCTGTGTCGAGCTGGACGGGACGTAAACGGCCACAAGTTGAGCGTGTCCGGCGAGGGCGAGGGCGATG
 CCACCTACGGCAAGCTGACCTGAAGTTCATCTGCACCACCGCAAGCTGCCCCGTGCCCTGGCCCCACCTCGTGACCACC
 CTGACCTACGGCGTGCACTGCTTACGGCTACCCCGACCACATGAAGCAGCACGACTTCTTCAAGTCCGCCATGCCCGA
 AGGCTACGTCCAGGAGCGCACCATTCTTCTCAAGGACGACGGCAACTACAAGACCCGCGCCGAGGTGAAGTTCCGAGGGCG
 ACACCTGGTGAACCGCATCGAGCTGAAGGGCATCGACTTCAAGGAGGACGGCAACATCTGGGGCACAAGCTGGAGTAC
 AACTACAACAGCCACAACGTCTATATCATGGCCGACAAGAACGGCATCAAGGTGAACCTCAAGATCCGCGACACA
 CATCGAGGACGGCAGCGTGCAGCTCGCGACCACTACAGCAGAACACCCCATCGCGACGGCCCCGTGCTGCTGCCCG
 ACAACCACTACCTGAGGACCCAGTCCGCCCTGAGCAAGACCCCAACGAGAAGCGCGATCACATGGTCTGCTGGAGTTC
 GTGACCGCGCGGGATCACTCTCGGCTAGGAGCTGTACAAGTCCGGACTCAGATCCACCGGATCTAGATAACTGAT
 CATAATCAGCCATACCACATTTGTAGAGGTTTTACTTGCTTTAAAAAACCTCCACACCTCCCCCTGAACCTGAAACATA
 AAATGAATGCAATTGTTGTTGTTAACTGTTTATTGACGCTTATAATGGTTACAAATAAAGCAATAGCATCAAAATTC
 ACAATAAAGCATTTTTTCACTGCACTTAGTTGTGTTTGTCCAACTCATCAATGTATCTTAAACGCGAATCACTGCA
 GGTGGCACTTTTTCGGGAAATGTGCGCGGAACCCCTATTGTTTATTTTCTAAATACATTCAAATATGTATCCGCTCAT
 GAGACAATAACCTGATAAATGCTTCAATAATATTGAAAAGGAGAGTATGAGTATTCAACATTTCCGTGTGCCCTTA
 TTCCCTTTTTTGGCGCATTTTGCCTTCTGTTTGTCTCACCAGAAACGCTGGTGAAGTAAAGATGCTGAAGATCAG
 TTGGGTGCACGAGTGGGTACATCGAATCGATCTCAACAGCGGTAAGATCCTTGAGAGTTTTCCGCCGGAAGAACGTTT
 TCCAATGATGAGCACTTTTAAAGTCTGCTATGTGGCGCGGTATTATCCGTGTTGACGCCGGCAAGAGCAACTCGGTC
 CGCGCATACACTATTCTCAGAATGACTTGGTTGAGTACTCACCAGTCAAGAAAAGCATCTTACGGATGGCATGACAGTA
 AGAGAATTATGCACTGCTGCCATAACCATGAGTGATAACACTGCGGCCAATTACTTCTGACAACGATCGGAGGACCGAA
 GGAGCTAACCGCTTTTTTGCAACATGGGGATCATGTAACCTGCGCTGATCGTTGGGAACCGGAGCTGAATGAAGCCA
 TACCAACGACGAGCGTGACACCAGATGCTGTAGCAATGGCAACACGTTGCGCAAACTATTAAGTGGCGAACTACTT
 ACTCTAGCTTCCCGCAACAATTAATAGACTGGATGGAGCGGATAAAGTTGCGAGGACCACTTCTGCGCTCGGCCCTTC
 GGCTGGCTGGTTATTGCTGATAAATCTGGAGCGGTGAGCGTGGGTCTCGCGGTATCATTGCGCACTGGGGCCAGATG
 GTAAGCCCTCCCGTATCTAGTTATCTACAGACGGGGAGTCAAGCACTATGGATGAACGAAATAGACAGATCGCTGAG
 ATAGGTGCTCACTGATTAAGCATTGGTAACTGTGACACCAAGTTTACTCATATATACTTTAGATTGATTACCCCGGTT
 GATAATCAGAAAAGCCCCAAAACAGGAAGATTGTATAAGCAATATTTAAATGTAAACGTTAATAATTTGTTAAATTT
 CGCGTTAAATTTTTGTTAAATCAGCTCATTTTTTAAACCAATAGGCCGAAATCGGCAAAATCCCTTATAAATCAAAGAAT
 AGCCCCGAGATAGGGTTGAGTGTGTTCCAGTTTGGAAACAGAGTCCACTATTAAGAAGCTGGACTCCAACGTCAAAGGG
 CGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCAACCAATCAAGTTTTTGGGGTCCAGGTGCCGTAA
 AGCACTAAATCGGAACCCCTAAAGGGAGCCCCGATTTAGAGCTTGACGGGAAAGCGAACGTGGCGAGAAAGGAGGAA
 GAAAGCGAAAGGAGCGGGCGCTAGGGCGCTGGCAAGTGTAGCGGTACGCTGCGCGTAACACACACCGCGCGCTTA
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 GTAAGTGGCTTACGAGAGCGCAGATACCAATACTGTTCTTCTAGTGTAGCGGTAGTTAGGCCACCACTTCAAGAACTC
 GTAGCACCGCTACATACCTCGCTCTGCTAATCTGTTTACCAGTGGCTGCTGCCAGTGGCGATAAGTGTGTCTTACCG
 GGTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTGGGCTGAACGGGGGTTCTGTGCACACAGCCAGCTTG
 GAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCGAAGGGAGAAAGGC
 GGACAGGTATCCGGTAAGCGGCGAGGTCCGGAACAGGAGAGCGCAGGGAGCTTCCAGGGGAAACGCTGGTATCTTT
 ATAGTCTGTGCGGTTTCCGCCACTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAAGGGGCGGAGCCTATGGAAA
 AACGCCAGCAACGCGCCTTTTACGCTTTATGCTTCCGCTCGTATGTTGTGTGGAATTGTGAGCGGATAACAATTTACACA
 GGAACAGCTATGACCATGATTACGCCAAGCTACGTAATACGACTCACTAGGCGGCGCGTTTAAACAATGTGCTCCTCT
 TTGGCTTGTCTCCGCGGGCAAGCCAGACAAGAACAGTTGACGTCAAGCTTCCCGGACCGGTGCTAGCGGCGCGCGGA
 ATTCCTGACGATTGAGGGGCCCCGAGGTCAATTTACCGGTTAGGGGAGGCGCTTTCCCAAGGCAGTCTGGAGCAT
 GCGCTTTAGCAGCCCCGCTGGCACTTGGCGCTACACAAGTGGCCTTGGCCTCGCACACATTCACATCCACCGGTAGCG
 CCAACCGGCTCCGTTCTTTGGTGGCCCCCTTCGCGCCACTTACTCTCTCCCTAGTCAGGAAGTCCCCCCCCCGCCCGC
 AGCTCGCGTGTGACGAGCGTGACAAATGGAAGTAGCAGCTCTCACTAGTCTCGTGAGATGGACAGCACCGCTGAGCAA
 TGGAAAGCGGGTAGGCCTTTGGGGCAGCGGCAATAGCAGCTTGTCTCCTTCGCTTTCTGGGCTCAGAGGCTGGGAAGGG
 TGGGTCCGGGGCGGGCTCAGGGGCGGGCTCAGGGGCGGGGCGGGCGGAAGGTCTCCCGAGGCCCCGCTTCTCGCAC
 GCTTCAAAGCGCACGTCTGCCGCGCTGTTCTCTCTCTCATCTCCGGGCTTTCGACCTGACGCAATATGGGATCG
 GCCATTGAACAAGATGGATTGACGCGAGTTCTCCGGCGCTTGGGTGGAGAGGCTATTCCGCTATGACTGGGCACAACA
 GACAACTCGCTGCTGTATGCGCGCGTGTTCGGCTGTGACGCGAGGGGCGCGCGTCTTTTGTCAAGACCGACCTGT
 CCGGTGCCCTGAATGAAGTGCAGGACGAGGACGCGGCTATCGTGGCTGGCCACGACGGCGTCTTGTGCGCAGCTGTG
 CTCGACGTTGTCACTGAAGCGGAAGGACTGGCTGCTATTGGCGAAGTGGCGGGCAGGATCTCTGTCTCATCTCACCT

TGCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCAATGCCGCCGCTGCATACGCTTGATCCGGCTACCTGCCCATTCG
ACCACCAAGCGAAACATCGCATCGAGCGAGCAGTACTCGGATGGAAGCCGGTCTTGTCGATCAGGATGATCTGGACGAA
GAGCATCAGGGGCTCGCGCCAGCCGAACTGTTGCCAGGGCTCAAGGCGCGCATGCCGACGGCGATGATCTCGTCGTGAC
CCATGGCGATGCCTGCTTGCCGAATATCATGGTGGAAAATGGCCGCTTTTCTGGATTTCATCGACTGTGGCCGGCTGGGTG
TGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGCGAATGGGCTGACCGCTTC
CTCGTGCTTTACGGTATCGCCGCTCCCGATTTCGAGCGCATCGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGAGGGGA
TCGATCCGTCTGTAAAGTCTGCAGAAATTGATGATCTATTAAACAATAAAGATGTCCACTAAAATGGAAGTTTTCTGT
CATACTTTGTTAAGAAGGGTGAGAACAGAGTACCTACATTTGAATGGAAGGATTGGAGCTACGGGGTGGGGTGGGT
GGGATTAGATAAATGCCTGCTCTTTACTGAAGGCTCTTTACTATTGCTTTATGATAATGTTTCATAGTTGGATATCATAA
TTTAAACAAGCAAAACCAAATTAAGGGCCAGCTCATTCTCCCACTCATGATCTATAGATCTATAGATCTCTCGTGGGAT
CATTGTTTTTCTCTTGATTCCCACTTTGTGGTTCTAAGTACTGTGGTTTCCAAATGTGTCAGTTTCATAGCCTGAAGAAC
GAGATCAGCAGCCTCTGTTCCACATACACTTCATTCTCAGTATTGTTTTGCCAAGTTCTAATTCCATCAGAAGCTGACTC
TAGATCTGGATCCGGCCAGCTAGGCCGTGCACCTCGAGTGATCAGGTACCAAGGTCCTCGCTCTGTGTCCGTTGAGCTCG
ACGACACAGGACACGCAATTAATTAAGGCCGCCCGTACCCTCTAGTCAAGGCCTTAAGTGAGTCGTATTACGGACTGG
CCGTCGTTTTACAACGTCGTGACTGGGAAAACCCCTGGCGTTACCCAACTTAATCGCCTTGACGACATCCCCCTTTCGCC
AGCTGGCGTAATAGCGAAGAGGCCCGCACCGATCGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCGAATGGCGCTTCGC
TTGGTAATAAAGCCCGCTTCGGCGGGCTTTTTTTT

FIGURE 3B (Continued)

Annealing site	Sequence	Sequence after digestion
1	5' AAtgtgtcctcctcttgggttggttccgc 3' 3' Ttacacgaggagaaacccaacgaagg 5'	5' AA 3' Ttacacgaggagaaacccaacgaagg 3' 5'
2	5' AActgggttcttgctgggttggtccgc 3' 3' Ttgaccaagaacagaccgaaccggg 5'	5' AA 3' Ttgaccaagaacagaccgaaccggg 3' 5'
3	5' AAggtcctcgtctgtgtccgttgagct 3' 3' Ttccaggagcgagacacaggcaac 5'	5' AA 3' Ttccaggagcgagacacaggcaac 3' 5'
4	5' AAttgctgtgtcctgtgtcgtcagct 3' 3' Ttaacgcacaggacacagcagc 5'	5' AA 3' Ttaacgcacaggacacagcagc 3' 5'

FIGURE 5

FIGURE 6

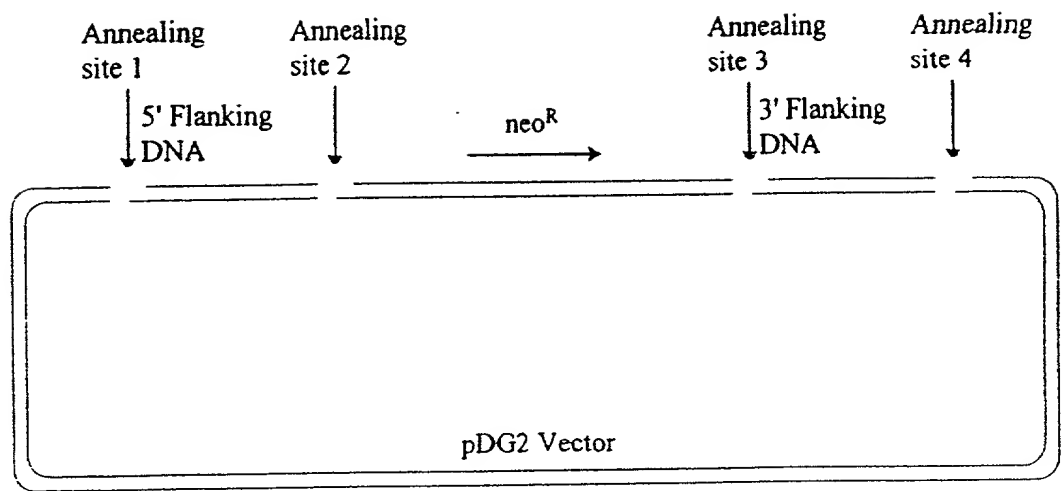
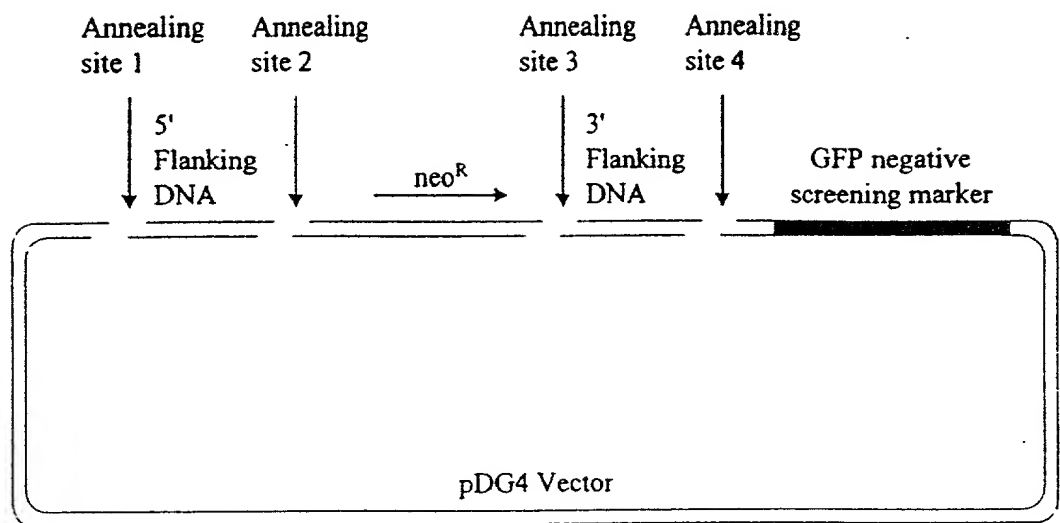


FIGURE 7



GGACATGGACTGCTATCTGCGTCGCCTCAAACAGGAGCTGATGTCCATGAAGGAGGTGGGGGATGGCTTG
 CAGGATCAGATGAACTGCATGATGGGCGCAGACTGGGCTAGCTGGAGAGAGACAAGAACCAAAAGCACAG
 CCTTCCTGTGTGATTTCTACAGCCCCAGAGCACCATGGACCCAGGGAACCCAGGAAAAACGTGCTGGT
 GGTGGCTCTCCTTGTCATTTTCCAGGTGTGCTTCTGCCAAGATGAGGTCACCGATGACTACATCGGCGAG
 AATACCACGGTGGACTACACCCTGTACGAGTCGGTGTGCTTCAAGAAGGATGTGCGGAACTTTAAGGCCT
 GGTTCCTGCGCTCTCATGTATTCTGTCATCTGCTTCGTGGGCTGCTCGGCAACGGGCTGGTGATACTGAC
 GTACATCTATTTCAAGAGGCTCAAGACCATGACGGATACCTACCTGCTCAACCTGGCCGTGGCAGACATC
 CTTTTCTCCTAATTCTTCCCTTCTGGGCTACAGCGAAGCCAAGTCTGGATCTTTGGCGTCTACCTGT
 GTAAGGGCATCTTTGGCATCTATAAGTTAAGCTTCTTCAGCGGGATGCTGCTGCTCCTATGCATCAGCAT
 TGACCGCTACGTAGCCATCGTCCAGGCCGTGTGCGTCATCGCCACCGCGCCCGGTGCTTCTCATCAGC
 AAGCTGTCTGTGTGGGCATCTGGATGCTGGCCCTCTTCTCTCCATCCCGAGCTGCTCTACAGCGGCC
 TCCAGAAGAACAGCGCGGAGGACACGCTGAGATGCTCACTGGTCAGTGCCCAAGTGAGGGCCTTGATCAC
 CATCCAAGTGGCCAGATGGTTTTTGGGTTCTAGTGCCCTATGCTGGCTATGAGTTTCTGCTACCTCATT
 ATCATCCGTACCTTGCTCCAGGCACGCAACTTTGAGCGGAACAAGGCCATCAAGGTGATCATTGCCGTGG
 TGGTAGTCTTCATAGTCTTCCAGCTGCCCTACAATGGGGTGGTCTGGCTCAGACGGTGGCCAACCTCAA
 CATACCAATAGCAGCTGCGAAACCAGCAAGCAGCTCAACATTGCCTATGACGTCACTACAGCCTGGCC
 TCCGTCCGCTGCTGCGTCAACCCTTTCTTGTATGCCTTCATCGGCGTCAAGTTCCGCAGCGACCTCTTCA
 AGCTCTTCAAGGACTTGGGCTGCCTCAGCCAGGAACGGCTCCGGCACTGGTCTTCTGCGCGCATGTACG
 GAACGCGTCGGTGAGCATGGAGGCGGAGACCACACAACCTTCTCCCCGTAGGGGGCTCCCCTGCCCGGA
 CTACAAGGACCTCTCCAGGAGCCTTAATGTGGTGCACACATGCACAGACTCTCCATCCACCGAATTGCT
 GCTGAGGGAAGAGCAATTCTGGCCAGTCAGGTTGACATGAGGACCTAAGAAACTGCTTAACCCCATCCCA
 CTTATAACTACCTCAACCAAAGCTGTAAAGATATGGCTGAGAAGTTAACTCAAGCCAAGACAGCTAT
 CCCCCAACGACAGCCAAAAGTGAAAGTGAGAGGCTCCACACTTTCGGAGTGAGGGATGTGGGGCCAGT
 GAACACCCTGGTTGAGTAGTCTTCGGAGGCCTCTGAATGAACCTGCTTCTAGCTTAGAGAGATGTCCCGG
 AGATTCAAGACAGAGCTTATCTCCACACTTAGCAAGCAAGCAAGAGATGACAGTCTCTCTAAATGCTCCC
 ACAGAGCACCCCTGCCCCCTCCCTTCTGCCTCTCCACCGCCTTTCCTGAGGTCCAGGCCACACCATGACGC
 TGAGGCAGTCCCAGCTGGGGCTCTGGATGGCAATGACAAGTAGTTGGGTCTCTATGATGGGAATAAAAAG
 GTAGGGGAAAGGTGACAGGAAGGAGAGAAGGTGACCTGCTGGCTGACAGAGGCCAGCAAGCTACTTCTT
 TGTCTCTGTGAGCCAGCCACTGATACCTTTCTCATGTTCTGCTTTTGATTATATATCTTTTATGAAG
 AAACAAATAAAAAAAATTTTCCCTCGAGGAAACAACCTTGG
 (SEQ ID NO:19)

Targeting Vector (5' arm; 200 bp flanking neo insert):

GATGACTACATCGGCGAGAATACCACGGTGGACTACACCCTGTACGAGTCGGTGTGCT
 TCAAGAAGGATGTGCGGAACTTTAAGGCCTGGTTTCTGCCTCTCATGTATTCTGTCATC
 TGCTTCGTGGGCTGCTCGGCAACGGGCTGGTGATACTGACGTACATCTATTTCAAGA
 GGCTCAAGACCATGACGGATACCTA (SEQ ID NO: 21)

Targeting Vector (3' arm; 200 bp flanking neo insert):

AACCAGCAAGCAGCTCAACATTGCCATGACGTACCTACAGCCTGGCCTCCGTCCGCT
 GCTGCGTCAACCCTTTCTGTATGCCTTCATCGGCGTCAAGTTCCGCAGCGACCTCTTC
 AAGCTCTTCAAGGACTTGGGCTGTCTCAGCCAGGAACGGCTCCGGCACTGGTCTTCTC
 CGCGCATGTACGGAACGCGTCGGT (SEQ ID NO: 22)

FIG. 8